

Notice of Allowability

Application No.

09/928,590

Examiner

Jeffrey T. Barton

Applicant(s)

SPENCE ET AL

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 20 September 2006.
2. ☒ The allowed claim(s) is/are 2-18, 21-36, 39-49, 51, 53 and 54.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ted Apple on 4 December 2006.

The application has been amended as follows:

In the specification:

On page 1 in the 2nd line of the 1st paragraph (Note the Preliminary Amendment Filed 13 August 2001), please insert --, now U.S. Patent No. 6,540,895-- after "(hereinafter "the '667 application")".

In the claims:

- a. In claim 3 at lines 1-2, please delete the phrase "is comprised of" and insert the word --comprises-- before the word "silicon".
- b. In claim 5 at line 1, please delete the words "particles of" after the words "wherein the".
- c. In claim 5 at line 2, please delete the word "comprise" and insert the word --comprises-- before the word "cells".
- d. In claim 14 at line 2, please delete the words "is provided by" and insert the words --system provides-- after the word "control".

- e. In claim 16 at lines 1-2, please delete the words "is by" and insert the words --system provides-- after the word "control".
- f. In claim 17 at line 1, please delete the words "pressure driven flow control" and insert the words --the pressure gradient-- after the word "wherein".
- g. In claim 18 at line 1, please insert the word --system-- after the word "control".
- h. In the first line of **each** of claims 21-28, 31, and 32, please delete the number "52" and insert the number --51-- after the word "claim".
- i. In claim 26 at line 2, please delete the word "predetermined" before the word "characteristic".
- j. In claim 32 at line 2, please delete the words "biological materials within a predetermined" and insert the words --the biological material within the-- before the words "detection region".
- k. In claim 33 at line 2, please delete the words "a channel" and insert the words --at least one of the channels-- before the words "of the device".
- l. In claim 34 at line 1, please delete the words "a channel" and insert the words --at least one of the channels-- after the word "wherein".
- m. In claim 42 at line 1, please delete the number "54" and insert the number --40-- after the word "claim".
- n. Please cancel claim 52.
- o. In claim 53 at line 2, please delete the word "PolyDiMethylSiloxan" and insert the word --polydimethylsiloxane-- after the word "comprises".

2. The following is an examiner's statement of reasons for allowance:

The primary reason for allowance is the inclusion of the limitation to "a processor configured to receive a signal from the detection apparatus and in response to the signal, actuate the flow control system to reverse the flow of fluid in the branch channel". As pointed out by Applicant in the Remarks filed 20 September 2006, Blankenstein et al disclose flow reversal in order to empty the syringes when full. (Page 24, line 36 - Page 25, line 4) Ramsey et al disclose reversibility of flow in their system outside of the context of the cell sorting procedure. (Column 5, lines 2-5) As cited in the previous rejections, Corio et al teach the use of a computer to control user interface functions. (Column 5, lines 50-64) None of these references provides any teaching of a processor configured as claimed. Likewise, no suggestion for such modification was found, since none of the references provide any teaching of flow reversal in the system in response to a detector signal. Therefore, the claims are considered to be patentably distinguished from the prior art of record.

At Applicant's request, the Examiner also notes that the change to claim 3 made above is intended to improve the clarity of the claim, and that no change in the scope of this claim is envisioned.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

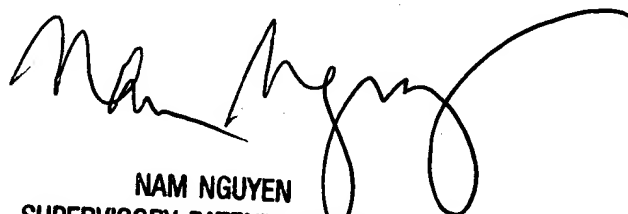
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Jeffrey T. Barton whose telephone number is (571) 272-1307. The examiner can normally be reached on M-F 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JTB
4 December 2006



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